DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014951 Address: 333 Burma Road **Date Inspected:** 17-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes An Qing Xiang. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 11

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6028 (MT) report for this date. The member is identified as West tower lift 3 Cable tray. The weld designations reviewed are as follows.

B22-3-EL85.468M-1~2-1, 2-W

B22-3-EL86.785M-1~2-1, 2-W

B22-3-EL88.083M-1~2-1, 2-W

NDT Notification No-006003

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as SD1-STSA4-5-143M-1-17, 18, 25, 26, ZPMC CWI

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Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

SMAW Process, Repair Welding.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as ED1-STSA4-6-131M-1-5A/B, ZPMC QC Identified as Mao Bin Bin, with temporary welding repair report WRR-T-WR3323. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-FCM-Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 046704, Perform Shielded Metal Arc Welding (SMAW) on West tower lift 5 Grillage plate. Joint identified as WSD1-TL5-4B/F-34A/B. ZPMC QC Identified as Liu Dao Feng, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-7-3B. ZPMC QC Identified as Xu Jun Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-2-1A. ZPMC QC Identified as Xu Jun Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

Repair Welding: FCAW Process.

This QA Inspector observed ZPMC qualified welding personnel identified as 040759, 040723, Perform Flux Core Arc Welding (FCAW) on Grillage Top plate. Joint identified as GTSA5-B/G-3A/B, 6A/B. ZPMC QC Identified as Xu Jun Long, with Temporary welding repair report WRR-T-WR3367 and 3368. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-1G (1F)-Repair. For more information see below attach picture number 1.

SMAW Process, Repair Welding.

This QA Inspector observed ZPMC qualified welding personnel identified as 040724, 251194, 044551, 040611, Perform Shielded Metal Arc Welding (SMAW) on East, West tower lift 5 Transverse Diaphragm plate. Plate identified as LD5-4, weld Build up required 27mm, ZPMC CWI Identified as Yu Dong Ping, with Critical welding repair report CWR-T-CWR637. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-Repair-1. For more information see below attach picture number 2.

BAY 10: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044511, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-6-3B, ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

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This QA Inspector observed ZPMC qualified welding personnel identified as 056200, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-6-1B, ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-16-3B. ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050289, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as NSD1-SPSA5-19-2A. ZPMC QC Identified as Lijun, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 052930, 052493, Perform Shielded Metal Arc Welding (SMAW) on North tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3B/F-24A, 41B. ZPMC QC Identified as Li Peng Fei, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

Ultrasonic Testing:

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performed UT on Interior Splice plate. Item identified as SSD1-SPSA5-19-1, 2, 3A/B and SSD1-SPSA5-16-1, 2, 3A/B. For more information see below attach picture number 3.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer